

## LONG TERM EFFICACY AND PATIENT SATISFACTION OF PPLICATION CORPOROPLASTY IN CONGENITAL PENILE CURVATURE

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**Introduction & Objectives:** Corporoplication for penile curvature is a simple technique though, according to some authors, more at risk of recurrence than albuginea excision techniques, particularly on the long term. Aim of the study is to evaluate the long term results of tunica albuginea plication in patients with congenital curvature of the penis and to compare them with those obtained with the Nesbit technique.

**Material & Methods:** 62 patients underwent surgical correction of congenital curvature of the penis from 1988 to 2003 at our institution. Out of them, only 31 consented to be re-evaluated. 19 patients had plication corporoplasty by means of one or more double crossed introflecting stitches with albuginea cruentation (group A). 12 patients have had a traditional Nesbit technique with excision of small parts of tunica albuginea (group B). Mean age of patients at surgery was: 21 +/- 5 years in group A and 16 +/- 3 in group B. All patients were re-evaluated with physical examination, a specific questionnaire and self-photography on erection after a mean follow-up of 88 months in group A and 141 months in group B. Student test was employed for statistical analysis.

**Results:** 3 recurrences of curvature were observed in group A 1-3 month after surgery, which required surgical correction. In all three patients a reabsorbable suture (2-0 poligalactinic) had been employed. No recurrences were observed in group B (p: 0,15). In 6 patients of group A (31%) and in 6 patients of group B (50%) a minimal persistent deviation was present (p: 0,29). However, these patients always reported an optimal satisfaction. No hypercorrections were observed in both groups. A minimal hypo-sensitivity of glans and prepuce was reported in 7 pts of group A (38%) and 9 pts of group B (75%) (p: 0,03).

**Conclusions:** Plication corporoplasty yields good and stable results when compared to the Nesbit technique provided that unabsorbable sutures are used and albuginea cruentation is performed.

## RECONSTRUCTIVE SURGERY FOR PENILE CANCER WITH PRESERVATION OF SEXUAL FUNCTION

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**Introduction & Objectives:** Surgery for penile cancer, at present, has to purpose two opposite goals: oncological radicality for the cancer and preservation of sexual function.

**Material & Methods:** Since '88 we demonstrated that the spongy urethroglandular tissue could be completely and anatomically separated from the cavernous bodies ("Spongy-cavernous disassembly"); this procedure could be suggested for penile cancer involving the glans but not infiltrating cavernous bodies. (Jacson 1 grade). In this case a "cavernous sparing procedure" could be performed, thus preserving a valid sexual activity and a good oncological result. Following this way the glans with distal urethral stump and the distal part of N.V. Bundle, could be removed, leaving intact the cavernous bodies with the retrostomized urethra. In the other types of penile cancer classical procedures are still indicated: amputation or total penectomy. After penile amputation a particular reconstructive procedure could be performed: "Phallo-glanduloplastie" using prosthesis implants with dermal-epidermal and oral mucosa grafts. This procedure allows to increase the penis length up to 3-5 cm after full detachment of penile ligament with endocavernous soft prosthesis implant (axial tutors); then glandular reconstruction could be performed with oral mucosa, while dermo-epidermal split thickness graft could be used for covering the new longer penile shaft. After total penectomy few different techniques are utilized: -Antibrachial microcutaneous microscopically revascularized flap (Chang technique); -Abdominal rectus muscle flap with dermo-epidermal split thickness graft (Mulcahy technique); -Miocutaneous abdominal flaps (Pryor and Perovich techniques). All of them followed by prosthesis implants

**Results:** From 2000 to 2006 we operated 57 pts: Jacson S1 40 pts, Jacson S2 11 pts. Jacson S3 6 pts. The outcomes of this procedures are almost satisfactory: 39 pts cavernous sparing glandulectomy, local recurrence 0, inguinal methast.6, not related deaths 2, not evidence of disease 28, coital ability 84%, orgasm feeling 78%. 12 cavernous resections with glan reconstruction: local recurrence 1, inguinal methast.2, not evidence of disease 9. 6 total penectomy, inguinal methast.4, not evidence of disease 2, total Mulcahy phalloplasty 2.

**Conclusions:** The reconstructive surgery for Penile Cancer allows to achieve in many cases the preservation of sexual activity, even after radical cancer procedures.

## SURGICAL TREATMENT OF LA PEYRONIE'S DISEASE: A MULTICENTRE EVALUATION OF THE AUSTONI'S PROCEDURE

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**Introduction & Objectives:** The surgery challenges for Peyronie's Disease (PD) lies in correcting corpora cavernosa (CC) bending and shortening. The Nesbit straightening procedures cause a penile shortening directly proportional to penile curvature and thus are not indicated in advanced diseases. Plaque surgery is suggested for stretch and lengthen the curved and retracted penis, using grafting, but present high recurrence rates for retraction, bending and E.D. Austoni's technique produces a penile straightening-lengthening through an albuginea incision followed by venous graft. The procedure is regulated by a minimally invasive implantation of soft-silicone axial stent (soft prosthesis), which guarantees penile extension during post-operative course and a right graft take. So risks of post-operative retraction and sexual dysfunction can be reduced.

**Material & Methods:** 7 Centres have applied this procedure from 2004 to 2006 Biella: 12 pts Torino; 12 pts Perugia; 10 pts L'Aquila; 6 pts Avellino; 10 pts (5 saphena + 5 bovine) Monopoli; 42 pts (25 saphena + 11 SIS + 6 bovine) grafts Milano (Pilot Centre) 258 pts (2000/2006) Pre-operative work-up: -medical history, Doppler ultrasound imaging, photography of penile erection, measurement of maximum length. ( E.D. 21%, deviation 30°-90°, length 9-17 cm). Standard procedures: -Circular sub-coronal incision - Bilaterally intracavernous implant of axial silicon stents. (caliber 10-7, oversized 2 cm longer than CC, atraumatically inserted). -Single relaxing albuginea incision with erectile tissue sparing procedure. (concavity incision, revealed and maximized by the oversized implants). -Saphenous graft to cover albuginea defect -Pre/postoperative penile length evaluation -Postoperative questionnaire on penile morphology and sexual function Variants of the technique: - plaque excision (13%), double incision (12%), SIS-bovine grafts (6%)

**Results:** Pilot Centre (258 pts)/Satellite centres (92 pts): - penile lengthening: 1,9/2.1 cm, penile straightening: 92/89% - sexual function: satisfactory 30/12%, very satisfactory 64/75% - morphology: satisfactory 20/31% - very satisfactory 65/6% - dissatisfaction because of permanent extension: 5/2% - glan hypoesthesias: 22/22% - explantation: 3/8%

**Conclusions:** The corporal retraction PD induced, give most of the sexual troubles: our procedure seems to allow better results for penile lengthening than other techniques. Patients disregard the penile permanent extension and report satisfactory sexual activity (87-94%). The procedure strikes a well balanced compromise between the simple plaque surgery which is more functional but associated with higher retraction rates, and the simple prosthetic surgery (even after manual remodelling manoeuvres), which does not guarantee the main goal of PD-surgery: a satisfactory lengthening of the penis.

## TWENTY YEARS OF MALE TO FEMALE GENDER REASSIGNMENT SURGERY

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**Introduction & Objectives:** To report psychosocial and functional long-term results in male to female transsexual patients following gender reassignment at our institution.

**Material & Methods:** The surgical technique is described as it evolved over the years. All patients have been re-evaluated by local examination, personal interview, questionnaires on surgical results, personal satisfaction, psychosocial and sexual status, blood biochemistry, and hormonal status.

**Results:** From 1986 to 2007, 136 patients underwent gender reassignment surgery at our department following psychiatric counselling and hormonal therapy. Male to female gender reassignment surgery includes bilateral high orchiectomy, complete resection of the corpora cavernosa, and shortening of the urethra and corpus spongiosum. A pedicled inverted penile skin flap is used to create the neovagina in the cavity between rectum and prostate. The neoclitoris is created out of reduced glans penis attached to the dorsal neurovascular bundle. Patients' age at time of operation was 18 to 67 (median 36) years. Eighty seven of 136 patients were treated with a one-step operation alone. In 32 patients additional vulvoplasty was needed to correct the labia. Shrinkage of the neovagina (shortening < 8cm) occurred in 15 (11%) patients. Three patients (2.2%) developed a complete vaginal stenosis. In these cases a colonic vaginoplasty (sigma and coecum) has been performed. With respect to sexual and psychosocial data, follow up is available in 92 of the 136 patients. Ninety one patients reported good or moderate satisfaction with the surgery and its cosmetic results, 83 patients were also satisfied with the functional results. Most patients reported a more satisfactory social and personal life and unchanged professional life. The Female Sexual Function Index Scores showed almost no difference between our patient population and normal female controls in all domains except for lubrication. Serum levels of sex hormones were kept at perimenopausal level. There have been no side effects of long-term estrogen substitution in regard of liver enzymes or thromboembolic events.

**Conclusions:** With thorough preoperative psychiatric and psychological counselling, hormonal therapy, and refined operative technique, good results can be achieved concerning psychosocial integration and sexual function in male to female transsexual patients.